

REMARKS

Claims 10, 11 and 13-15 are pending in this application. The examiner has rejected all of the pending claims. First the examiner has rejected claim 10 under 35 USC §112, second paragraph. Claims 10 and 11 have been rejected under 35 USC §102(b) as anticipated by Neff (US 5,609,687). Additionally, claims 10 and 15 are rejected under 35 USC 102(b) as anticipated by Whitney (US 5,043,548). Furthermore, the examiner has rejected claims 13 and 14 as unpatentable under 35 USC §103(a) over Neff in view of Keyworth (US 5,723,176).

The examiner has rejected claim 10 under 35 USC §112, second paragraph, as indefinite. Specifically, the examiner argues that there is no explanation as to what an ESTA bell is in the specification. However, applicants respectfully request this rejection be withdrawn as the term “ESTA bell” is described in the specification on page 8, lines 27. The disclosure describes the means of producing at least one preferably cured coating film with a number of elements including “a bell for electrostatic application (ESTA bell)”.

Furthermore, the examiner has rejected claims 10 and 11 in view of Neff. The examiner argues that Neff discloses all of the limitations of claim 10 even though Neff does not disclose that the device is capable of using a reactive coating formulation in the extruder. However, “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2

SCHROF et al., Ser. No. 09/977,163

USPQ2d 1051, 1053 (Fed. Cir. 1987). In this instance the reference does not anticipate each and every element of the claims. Neff specifically teaches that the material enters the flow channel of the nozzle at an upper end thereof and exits the flow channel through an orifice to form a bead of material on a substrate. (Column 2, lines 14-16) (emphasis added). Furthermore, Figure 1 depicts the bead of material at number 16.

In contrast to the teaching of Neff, the instant invention is directed to producing at least one coating film on a substrate surface. The instant invention is directed to a means of producing at least one coating film on at least one area of a substrate surface. Indeed, examples of possible photoinitiators to be used are optically initiated polymerizations of low-viscosity coating formulations of reactive monomers, oligomers and prepolymers, or the optical crosslinking of linear polymers having a reactive side chains. (Applicants specification p. 3, lines 30-33). The coating formulation is of low viscosity as it is irradiated with light prior to its application to the substrate surface to form a film of the desired homogeneity. (Applicants specification p. 3, lines 34-36; p. 4 lines 1 and 34-36). Thus, the nozzle that the examiner argues meets the limitations of claims 10 and 11 is not at all suitable to accomplish the instant invention as claimed in claims 10 and 11. Moreover, the examiner states that Neff does not disclose a UV exposure unit or a UV laser. (Paper number 4, p.4). Thus, Neff does not disclose each and every element of the claimed invention.

With respect to claim 11, the examiner argues that Neff discloses a waveguide

which brings the radiation into contact with said at least one reactive coating formulation in said at least one application unit. However as claim 11 is dependent on claim 10, Neff has not disclosed each and every element of the claims 10 and 11 and therefore does not anticipate in view of the reasons stated above.

The examiner has further rejected claims 10 and 15 under 35 USC 102(b) as anticipated by Whitney. However, Whitney does not disclose each and every element of claims 10 and 15. The invention described in Whitney is directed to a laser plasma spray apparatus wherein a finely divided feed material in a carrier gas flow is fed into a confinement chamber along the direction of a laser beam and is melted in the plasma formed in the interaction of the laser beam, the feed material, and the gas at the focal point. (Abstract). Furthermore, Whitney provides that the plasma is a highly ionized cloud of ions and electrons that reaches an extremely high temperature within a limited volume. (Column 6, lines 8-11). The feed materials described include finely divided ceramic powder or metallic material such as titanium allows, tungsten, cobalt alloys and nickel alloys. (Column 6, 31-32; Column 7, 33-39). Thus, it appears the device of Whitney is designed for melting powderous material having a very high melting point and then depositing the molten particles on the surface of the substrate. The Whitney specification discloses this in column 3, lines 10-16.

The examiner argues that while not specifically disclosed by Whitney, the apparatus is considered capable of using a reactive coating formulation. (Paper number 4, p.3). However, this assumption is not in accordance with the requirements

of 35 USC §102(b) which requires that "A person shall be entitled to a patent unless..."

In this instance, the examiner has failed to overcome the requirements of this statutory burden. As described above, the Whitney device is designed to deposit molten particles on the surface of the substrate. However, under these conditions it is likely that a radiation-curable, reactive coating formulation would be completely carbonized under the conditions in the Whitney device. Accordingly, the device disclosed in Whitney is completely unsuited for producing a coating film of a radiation-curable coating formulation on a substrate surface.

The examiner has also rejected claims 13 and 14 under 35 USC §103(a) as unpatentable over Neff in view of Keyworth (US 5,723,176). However, as discussed below with regard to the specific references the examiner has failed to establish a *prima facie* case of obviousness with respect to the instant invention. Three requirements must be fulfilled in order for a *prima facie* case of obviousness to be satisfied. First, there must be some suggestion or motivation in the references themselves or available to one of ordinary skill in the art to modify the reference or to combine reference teachings.¹ Second, there must be a reasonable expectation of success. Third, the prior art references combined must teach or suggest all the claim limitations. MPEP §2143. Both the suggestion to carry out the claimed process and the reasonable expectation of success must be found in the prior art and not based on the applicant's

¹There are three possible sources for motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-1458 (Fed. Cir. 1988).

disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

Additionally, the level of ordinary skill in the art cannot be relied upon to provide the suggestion to combine references. *AI-Site Corp. v. VSI Int'l Inc.* 174 F.3d 1308, 50 USPQ2d 1161, 1171 (Fed. Cir. 1999). With respect to the instant application the examiner has failed to meet this burden.

The examiner has not identified the suggestion or motivation in the references themselves or available to one of ordinary skill in the art to modify the reference or to combine reference teachings that would render the instant invention obvious. In this instance the examiner has failed to consider the prior art in its entirety. A reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc., cert. Denied*, 469 U.S. 851 (1984). Neff discloses a nozzle that forms a bead of material on a substrate. As the particular advantage of the instant invention is to provide a uniform coating film Neff would not suggest to one of ordinary skill in the art the instant invention. Nor does Neff suggest that the instant invention would be successful. Accordingly, the combination of Neff and Keyworth would not suggest to one of ordinary skill in the art the instant invention as Neff, taken as a whole, is directed to an invention which is inapposite of the instant invention. Thus, the mere teaching of Keyworth regarding the a UV exposure unit or ultraviolet laser, in light of Neff, does not render the instant invention obvious.

In accordance with the above amendments and remarks applicants respectfully

SCHROF et al., Ser. No. 09/977,163

request withdrawal of the examiner's rejections and request that the pending claims be passed to issue.

Should a fee be required in connection with the filing of this paper, including Extension of Time fees kindly charge Deposit Account No. 11-0345. Please credit any excess fees to such deposit account.

Respectfully submitted,

KEIL & WEINKAUF



Herbert B. Keil
Reg. No. 18,967

1350 Connecticut Ave., N.W.
Washington, D.C. 20036
(202)659-0100

HBK/LES/lc